

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

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1. (Previously Presented) A vehicle system comprising:
 - (A) a control system for an equipment service vehicle comprising:
 - (1) a power source;
 - (2) a power transmission link;
 - (3) a plurality of input devices;
 - (4) a plurality of output devices;
 - (5) a plurality of microprocessor-based interface modules and a communication network, the plurality of interface modules being coupled to the power source by way of the power transmission link, the plurality of interface modules being interconnected to each other by way of the communication network, each of the plurality of interface modules being coupled to respective ones of the plurality of input devices and the plurality of output devices, and the plurality of interface modules storing I/O status information for the plurality of input devices and the plurality of output devices; and
 - (B) a personal digital assistant;

wherein the control system wirelessly communicates at least some of the I/O status information to the personal digital assistant;

wherein the control system wirelessly receives commands from the personal digital assistant and adjust output states of individual ones of the plurality of output devices in response to the commands, thereby allowing the personal digital assistant to manipulate the output states of the plurality of output devices;

wherein the personal digital assistant initiates at least a vehicle test program on at least one of the plurality of output devices; and

wherein the vehicle test program sequentially actuates the plurality of output devices.

2. (Previously Presented) The vehicle system of claim 1, wherein the personal digital assistant suspends or terminates the vehicle test program to at least one of the output devices.

3. (Previously Presented) The vehicle system according to claim 1, wherein the output states of multiple output devices are manipulated automatically and the personal digital assistant generates a report comprising information about whether the output states of the multiple output devices are within acceptable operating parameters.

4. (Previously Presented) The vehicle system according to claim 1, wherein the personal digital assistant generates a report based on the I/O status information.

5. (Original) The vehicle system according to claim 4, wherein the report comprises information pertaining to the utilization of the vehicle during a particular period of time.

6. (Original) The vehicle system according to claim 4, wherein the report comprises information pertaining to the loading of the vehicle during a particular period of time.

7. (Original) The vehicle system according to claim 1, wherein the I/O status information is communicated by way of an encrypted wireless communication link.

8. (Original) The vehicle system according to claim 1, wherein the I/O status information is wirelessly communicated directly from the control system to the personal digital assistant.

9. (Previously Presented) The vehicle system according to claim 1, wherein the personal digital assistant receives input using a touch-screen.

10. (Previously Presented) The vehicle system according to claim 1, wherein the personal digital assistant displays the I/O status information on a display.

11. (Original) The vehicle system according to claim 1,
wherein each of the plurality of interface modules broadcasts I/O status information pertaining to the respective input and output devices coupled to each respective interface module to the remaining interface modules; and
wherein each of the plurality of interface modules maintains an I/O status table, the I/O status table storing I/O status information for the plurality of input devices and the plurality of output devices.

12. (Original) The vehicle system according to claim 1, wherein output states of the plurality of output devices are determined at the respective interface module to which the output device is coupled based, at least in part, on input status information stored at the respective interface module.

13. (Original) The vehicle system according to claim 1, wherein the plurality of interface modules are distributed throughout the vehicle, and each respective interface module is locally disposed with respect to the respective input and output devices to which the respective interface module is coupled, so as to permit distributed data collection from the respective input devices to the respective interface module and distributed power distribution from the respective interface module to the respective output devices.

14. (Previously Presented) A system comprising:

(A) a fleet of equipment service vehicles, each vehicle in the fleet of vehicles comprising a control system that comprises:

- (1) a power source;
- (2) a power transmission link;
- (3) a plurality of input devices;
- (4) a plurality of output devices;

- (5) a plurality of microprocessor-based interface modules and a communication network, the plurality of interface modules being coupled to the power source by way of the power transmission link, the plurality of interface modules being interconnected to each other by way of the communication network, each of the plurality of interface modules being coupled to respective ones of the plurality of input devices and the plurality of output devices, and the plurality of interface modules storing I/O status information for the plurality of input devices and the plurality of output devices; and

- (B) a personal digital assistant;

wherein the personal digital assistant is connected to receive I/O status information from each vehicle in the fleet of vehicles by way of a wireless communication network;

wherein the personal digital assistant wirelessly initiates at least a vehicle test program for a plurality of vehicles that manipulates at least one of the plurality of output devices;

wherein the personal digital assistant generates a report that compares the results of the vehicle test program manipulation for the plurality of vehicles; and

wherein the report incorporates the distance traveled by at least one vehicle in the fleet of equipment service vehicles.

15. (Previously Presented) A system comprising:

- (A) a fleet of equipment service vehicles, each vehicle in the fleet of vehicles comprising a control system that comprises:

- (1) a power source;
- (2) a power transmission link;
- (3) a plurality of input devices;
- (4) a plurality of output devices;

- (5) a plurality of microprocessor-based interface modules and a communication network, the plurality of interface modules being coupled to the power source by way of the power transmission link, the plurality of interface modules being interconnected to each other by way of the communication network, each of the plurality of interface modules being coupled to respective ones of the plurality of input devices and the plurality of output devices, and the plurality of interface modules storing I/O status information for the plurality of input devices and the plurality of output devices; and

- (B) a personal digital assistant;

wherein the personal digital assistant is connected to receive I/O status information from each vehicle in the fleet of vehicles by way of a wireless communication network;

wherein the personal digital assistant device wirelessly initiates at least a vehicle test program for each vehicle that manipulates at least one of the plurality of output devices;

wherein the personal digital assistant generates a report that compares the results of the vehicle test program manipulation for each vehicle; and

wherein the report incorporates the distance traveled by each vehicle in the fleet of equipment service vehicles.

- 16. (Cancelled)

- 17. (Previously Presented) A system comprising:

- (A) a fleet of equipment service vehicles, each vehicle in the fleet of vehicles comprising a control system that comprises:

- (1) a power source;
- (2) a power transmission link;
- (3) a plurality of input devices;
- (4) a plurality of output devices;

- (5) a plurality of microprocessor-based interface modules and a communication network, the plurality of interface modules being coupled to the power source by way of the power transmission link, the plurality of interface modules being interconnected to each other by way of the communication network, each of the plurality of interface modules being coupled to respective ones of the plurality of input devices and the plurality of output devices, and the plurality of interface modules storing I/O status information for the plurality of input devices and the plurality of output devices; and

- (B) a personal digital assistant;

wherein the personal digital assistant is connected to receive I/O status information from each vehicle in the fleet of vehicles by way of a wireless communication network;

wherein the personal digital assistant wirelessly initiates at least a vehicle test program for a plurality of equipment service vehicles that manipulates at least one of the plurality of output devices;

wherein the personal digital assistant generates a report that compares the results of the vehicle test program manipulation for the plurality of vehicles;

wherein the report incorporates the engine utilization time of the vehicles in the fleet of equipment service vehicles.

18. (Previously Presented) A system comprising:

- (A) a fleet of equipment service vehicles, each vehicle in the fleet of vehicles comprising a control system that comprises:
 - (1) a power source;
 - (2) a power transmission link;
 - (3) a plurality of input devices;
 - (4) a plurality of output devices;

- (5) a plurality of microprocessor-based interface modules and a communication network, the plurality of interface modules being coupled to the power source by way of the power transmission link, the plurality of interface modules being interconnected to each other by way of the communication network, each of the plurality of interface modules being coupled to respective ones of the plurality of input devices and the plurality of output devices, and the plurality of interface modules storing I/O status information for the plurality of input devices and the plurality of output devices; and

- (B) a personal digital assistant;

wherein the personal digital assistant is connected to receive I/O status information from each vehicle in the fleet of vehicles by way of a wireless communication network;

wherein the personal digital assistant wirelessly initiates at least a vehicle test program for each vehicle that manipulates at least one of the plurality of output devices;

wherein the personal digital assistant generates a report that compares the results of the vehicle test program manipulation for each vehicle; and

wherein the report incorporates the on-site time of the vehicles in the fleet of equipment service vehicles.

19. (Original) The system according to claim 14, wherein the vehicle comprises a plurality of vehicle subsystems, and groups of output devices are compared to indicate relative usage of particular vehicle subsystems.

20. (Original) The system according to claim 14, wherein each of the plurality of interface modules broadcasts I/O status information pertaining to the respective input and output devices coupled to each respective interface module to the remaining interface modules; and

wherein each of the plurality of interface modules maintains an I/O status table, the I/O status table storing I/O status information for the plurality of input devices and the plurality of output devices.

21. (Original) The system according to claim 14, wherein output states of the plurality of output devices are determined at the respective interface module to which the output device is coupled based, at least in part, on input status information stored at the respective interface module.

22. (Original) The system according to claim 14, wherein the plurality of interface modules are distributed throughout the vehicle, and each respective interface module is locally disposed with respect to the respective input and output devices to which the respective interface module is coupled, so as to permit distributed data collection from the respective input devices to the respective interface module and distributed power distribution from the respective interface module to the respective output devices.

23. (Previously Presented) A method for wirelessly manipulating an equipment service vehicle comprising:
wirelessly transmitting I/O status information from a control system to a portable handheld off-board computer, the control system comprising a plurality of microprocessor-based interface modules and a communication network, the plurality of interface modules being coupled to a power source by way of a power transmission link, the plurality of interface modules being interconnected to each other by way of the communication network, each of the plurality of interface modules being coupled to respective ones of a plurality of input devices and a plurality of output devices, and the plurality of interface modules storing the I/O status information for the plurality of input devices and the plurality of output devices; and
wirelessly receiving a vehicle test program command from a programmed portable handheld off-board to initiate a vehicle test program, the vehicle test program sequentially actuates the plurality of output devices.

24. (Cancelled)

25. (Previously Presented) The method of claim 23, wherein the communicating a vehicle test program command step further comprises the programmed portable handheld off-board computer automatically manipulating output states of multiple output devices in response to at least one vehicle test program command.

26. (Previously Presented) The method of claim 23, further comprising generating a report comprising information pertaining to the utilization of the vehicle during a particular period of time.

27. (Cancelled)

28. (Previously Presented) A vehicle system comprising:

- (A) an equipment service vehicle including a control system which comprises:
 - (1) a power source,
 - (2) a power transmission link,
 - (3) a plurality of input devices,
 - (4) a plurality of output devices,
 - (5) a plurality of microprocessor-based interface modules and a communication network, the plurality of interface modules being coupled to the power source by way of the power transmission link, the plurality of interface modules being interconnected to each other by way of the communication network, each of the plurality of interface modules being coupled to respective ones of the plurality of input devices and the plurality of output devices, and the plurality of interface modules storing I/O status information for the plurality of input devices and the plurality of output devices; and

(B) a portable handheld off-board computer including a display and an operator input device;

wherein the portable handheld off-board computer is locally disposed relative to the equipment service vehicle, to communicate wirelessly with the control system, and to communicate a command from the portable handheld off-board computer to the control system which adjusts output states of individual ones of the plurality of output devices in response to the commands, thereby allowing the portable handheld off-board computer to manipulate the output states of the plurality of output devices;

wherein the portable handheld off-board computer initiates at least a vehicle test program on at least one of the plurality of output devices; and

wherein the vehicle test program sequentially actuates the plurality of output devices.

29. (Previously Presented) The vehicle system of claim 28, wherein the portable handheld off-board computer is a personal digital assistant.

30. (Previously Presented) The vehicle system of claim 28, wherein the portable handheld off-board computer communicates directly with the control system up to a range of approximately one mile.

31. (Previously Presented) The vehicle system of claim 30, wherein the portable handheld off-board computer communicates directly with the control system up to a range of approximately 1000 feet.

32. (Previously Presented) The vehicle system according to claim 1, wherein the personal digital assistant generates a customer invoice based on the I/O status information.

33. (Previously Presented) The vehicle system of claim 1, wherein the control system requires communication with the personal digital assistant to enable vehicle movement.

34. (Previously Presented) The system of claim 14, wherein the personal digital assistant generates a customer invoice based on the I/O status information.

35. (Previously Presented) The vehicle system of claim 28, wherein the control system requires communication with the portable handheld off-board computer to enable vehicle movement.

36. (Previously Presented) The vehicle system of claim 28, wherein the personal digital device suspends or terminates the test program to at least one of the output devices.

37. (Previously Presented) A vehicle system comprising:

(A) a control system for an equipment service vehicle comprising:

- (1) a power source;
- (2) a power transmission link;
- (3) a plurality of input devices;
- (4) a plurality of output devices;
- (5) a plurality of microprocessor-based interface modules and a communication network, the plurality of interface modules being coupled to the power source by way of the power transmission link, the plurality of interface modules being interconnected to each other by way of the communication network, each of the plurality of interface modules being coupled to respective ones of the plurality of input devices and the plurality of output devices, and the plurality of interface modules storing I/O status information for the plurality of input devices and the plurality of output devices; and
- (6) a storage compartment configured to store cargo; and

(B) a portable handheld off-board computer including a display and an operator input device;

wherein the portable handheld off-board computer wirelessly receives a radio frequency signal from the cargo stored in the storage compartment; and

wherein the portable handheld off-board computer wirelessly receives information regarding the destination of the cargo and at least some of the I/O status information from the control system.

38. (Previously Presented) The vehicle system of claim 37, wherein the radio frequency signal identifies a characteristic of the cargo.

39. (Previously Presented) The vehicle system of claim 37, wherein portable handheld off-board computer generates a report based on the characteristic of the cargo.

40. (Previously Presented) The vehicle system of claim 37, wherein the portable handheld off-board computer is a personal digital assistant.

41. (Previously Presented) A vehicle system comprising:

(A) a control system for an equipment service vehicle comprising:

- (1) a power source;
- (2) a power transmission link;
- (3) a plurality of input devices;
- (4) a plurality of output devices;
- (5) a plurality of microprocessor-based interface modules and a communication network, the plurality of interface modules being coupled to the power source by way of the power transmission link, the plurality of interface modules being interconnected to each other by way of the communication network, each of the plurality of interface modules being coupled to respective ones of the plurality of input devices and the plurality of output devices, and the plurality of interface modules storing I/O status

information for the plurality of input devices and the plurality of output devices; and

(6) a storage compartment configured to store cargo; and

(B) a portable handheld off-board computer including a display and an operator input device;

wherein the portable handheld off-board computer wirelessly receives a radio frequency signal from the cargo stored in the storage compartment, the radio frequency signal identifies a characteristic of the cargo;

wherein the portable handheld off-board computer wirelessly receives at least some of the I/O status information from the control system;

wherein the portable handheld off-board computer wirelessly initiates at least a vehicle test program that manipulates at least one of the plurality of output devices; and

wherein the portable handheld off-board computer generates a report that incorporates the results of the vehicle test program manipulation with the characteristic of the cargo.

42. (Previously Presented) A vehicle system comprising:

(A) a control system for an equipment service vehicle comprising:

(1) a power source;

(2) a power transmission link;

(3) a plurality of input devices;

(4) a plurality of output devices;

(5) a plurality of microprocessor-based interface modules and a communication network, the plurality of interface modules being coupled to the power source by way of the power transmission link, the plurality of interface modules being interconnected to each other by way of the communication network, each of the plurality of interface modules being coupled to respective ones of the plurality of input devices and the plurality of output devices,

and the plurality of interface modules storing I/O status information for the plurality of input devices and the plurality of output devices; and

(6) a storage compartment configured to store cargo; and

(B) a portable handheld off-board computer including a display and an operator input device;

wherein the portable handheld off-board computer wirelessly receives a radio frequency signal from the cargo stored in the storage compartment, the radio frequency signal identifies a characteristic of the cargo;

wherein the portable handheld off-board computer wirelessly receives at least some of the I/O status information from the control system; and

wherein the portable handheld off-board computer generates a report that incorporates information about cargo destination, weight, type, and location, the report further including a customized combination of select cargo and I/O status information selectable by a user, wherein the customized combination comprises a plurality of the following: delivery deadlines, transit time, source location, transit distance, fuel economy, fluid levels, tire pressure, and average engine RPM.